

IN THE CLAIMS:

Claim 1 (currently amended) A peptidomimetic compound having general formula Xaa-AA₁-AA₂, wherein Xaa is a heterocyclic or unusual amino acid, AA₁ and AA₂ are amino acids, and the bond between Xaa and AA₁ is either C(O)-NH or CH₂-NH, wherein AA₁ is ornithine and AA₂ is proline, and wherein Zaa is L-Abrine.

Claims 2 - 6 (cancelled)

Claim 7 (currently amended) A composition comprising the peptidomimetic compound according to claim 1 wherein the composition comprises a concentration of the peptidomimetic compound for 50% inhibition of ACE activity (IC₅₀) ~~ranges from 2 to 10 micromolar.~~

Claim 8 (previously presented) ~~A peptidomimetic compound~~ The composition according to claim 7, ~~+~~ wherein the composition comprises a dose of the peptidomimetic compound sufficient to block ~~which blocks~~ angiotensin converting enzyme ~~ranges~~ ranging between 5- 8 mg/kg of body weight of a mammal.

Claim 9 (withdrawn) A process to synthesize the peptidomimetic compound of claim 1, comprising

(a) coupling ACE inhibiting antihypertensive peptidomimetic molecule wherein a heterocyclic or unusual amino acid present at ante-penultimate position is coupled to a

dipeptide with amino acids present at ultimate position and penultimate position;

(b) synthesising dipeptide on a solid support by coupling and deprotection;

(c) coupling the heterocyclic or unusual amino acid to deprotected dipeptide at the N- α terminal of dipeptide;

(d) cleaving the synthesized peptidomimetic compound of step (c) from solid support followed by purification and characterization;

Claims 10 - 17 (cancelled)

Claim 18 (withdrawn/currently amended) A method for inhibiting angiotensin converting enzyme in a mammal comprising providing the peptidomimetic compound of claim 1, and administering the peptidomimetic compound to the mammal as an angiotensin converting enzyme inhibitor.

Claim 19 (withdrawn) The method according to claim 18 wherein the peptidomimetic compound is administered to the mammal in a dose effective to block angiotensin converting enzyme in the mammal, said dose ranging between 5- 8 mg/kg of body weight of the mammal.

Claim 20 (withdrawn) Method for the inhibition of angiotensin converting enzyme in a subject suffering from hypertension comprising administering to the subject a pharmaceutically effective amount of the peptidomimetic compound of claim 1 with a pharmaceutically effective carrier.

Claim 21 (withdrawn) Method according to claim 20 wherein the subject is a mammal.

Claim 22 (withdrawn) Method according to claim 20 wherein the subject is a human being.

Claim 23 (withdrawn) Method according to claim 20 wherein the peptidomimetic compound is administered to the subject in a dose which effectively blocks angiotensin converting enzyme in the subject, said dose ranging between 5- 8 mg/kg of body weight of the subject.

Claims 24 -27 (cancelled)

Claim 28 (currently amended) ~~The peptidomimetic compound according to claim 1~~ A peptidomimetic compound having general formula Xaa-AA₁-AA₂, wherein Xaa is a heterocyclic or unusual amino acid, AA₁ and AA₂ are amino acids, and the bond between Xaa and AA₁ is either C(O)-NH or CH₂-NH, wherein the peptidomimetic compound is selected from the group consisting of (a) L-Abrine-Orn-Pro, 3- (3-thienyl)-L-alanine-Orn-Pro, 3- (2-furyl)-L-alanine-Orn-Pro, 2-Benzimidazoleacetic acid- Orn-Pro, 5-Hydroxytryptophan-Orn-Pro, Homotryptophan-Orn-Pro, Homophenylalanine-Orn-Pro, 1,2,3,4-tetrahydro isoquinoline-3-carboxylic acid-Orn-Pro, Azetidine-3-carboxylic acid- Orn-Pro, Cyclohexylalanine-Orn-Pro, 2-Oxo-4-phenyl-3-oxazolidine acetic acid-Orn-Pro, and 4-piperazine acetic acid-Orn-Pro.

Claims 29 - 31 (cancelled)